THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXIII. THURSDAY, DECEMBER 7, 1865. No. 19.

EXTRACTION OF HARD CATARACT.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

BY GUSTAVUS HAY, M.D.

THE operation of extraction of cataract, even in cases in which the amount of success expected is sufficient to decidedly indicate the operation, presents considerable variety both as to the facility with which it is effected and as to its results. In conjunction with cataract the eye may be variously diseased and so altered that the lens may not slip out in the usual manner, and apart from the contingencies of the healing period the improvement in vision may be less than it would have been had the cataract been the only disease. We must not, however, attribute to disease in the eye what may be due to defect in the operation. Slight variations in the movement of the instruments, such as may very easily occur, become of considerable importance, owing to the minuteness of the parts, and may influence the result more or less favorably.

In illustration of the above, I have selected the following cases.

CASE I.—Mrs. E., American, æt. 57, healthy, entered the Infirmary Oct. 2d, 1864. The right eye had begun to get dim three years previously; the cataract was apparently hard, and now nearly ripe. The left was noticed to be dim a year previously; its cataract also hard, but not quite ripe.

Oct. 5th.—The ordinary flap-extraction, downwards, was done on the right eye, without ether.

10th.—Patient sitting up.

18th.—Yesterday, complaint of slight pain. The pupil a little smaller than in the other eye. Atropine instilled.

31st.—Wound well healed. Pupil opposite the middle of the cornea, and nearly round in form. With convex 4, vision at twenty feet is $\frac{1}{2\frac{1}{2}}$.

Nov. 1st.—With convex $3\frac{1}{2}$, vision is $\frac{1}{2}$.

Here we have a case which, with the exception of the slight irri-

tation recorded Oct. 18th, proceeded without any disagreeable circumstances and resulted successfully; so that a month after the operation the patient could leave the Infirmary, well. But such a favorable state of things is not the rule, at least not without numerous exceptions.

Case II.—Mrs. T., American, æt. 73, entered the Infirmary Oct. 6th, 1865. Sight began to fail in the left eye four years ago, with pain, which had recurred at times ever since. The right began to fail a half year after the other. Patient now sees with each eye large objects. Each lens is somewhat opaque in parts throughout, and shows a well-defined, small nucleus. Tension of eyes not increased.

Oct. 9th.—Iridectomy was done upwards on the left eye.

23d.—Under ether, an upper section of moderate size was made at the boundary between cornea and sclerotic, in the expectation that the small nucleus would easily pass out; but, after opening the anterior capsule, the lens refused to start. The section, though slightly smaller than usual, was yet thought to be sufficiently large. Some other method than the usual one must, then, be adopted. Schuft's spoon, it was thought, would endanger, by its too great size, a rupture of the hyaloid. Critchett's vectis spoon was preferred; but owing to its flatness, it had previously occurred to me that it would bring along the lens better if modified by the addition of a small oval opening, into which the convexity of the posterior surface of the lens might settle a little. Such an opening, 2 lines long and $1\frac{1}{2}$ lines broad, had therefore been made in the middle of the bowl of the spoon, the long axis of the opening coinciding with that of the spoon. This fenestrated spoon was introduced behind the lens, and with it the greater portion of the lens brought out without losing any vitreous. It was noticeable that, notwithstanding the appearance of a well-defined, small nucleus before the operation, yet after extraction the nucleus adhered rather firmly to the cortical portion.

Nov. 1st.—Some pain last night, and redness to-day.

13th.—Pain and redness have been considerable, but now diminishing. Sight improving.

21st.—Pain nearly gone; only slight redness remaining; with convex $3\frac{1}{2}$, has vision $\frac{1}{10}$ at ten feet.

As causes for the lens not slipping out easily, Stellwag mentions a flap too small, or a section carried too flat through the cornea, a spasmodic contraction of the sphincter pupillæ and posterior synechiæ. He does not mention an unusual degree of adhesion between lens and capsule, which may have existsd in the case just reported. As to the requisite size of the section, he says:—"A section of half the circumference of the cornea is never necessary, even for large nuclear cataracts; it suffices to enter and come out somewhat under the horizontal diameter of the cornea, and to carry the knife so that

the outer edge of the flap may be all along about a quarter of a line distant from the limbus conjunctivalis. If the nucleus is small and the cortical softened, or even if the nucleus be somewhat larger, but of normal consistency, a flap is sufficient whose extent exceeds only a little a third of the circumference of the cornea." This last is not strange if we remember that the average diameter of the lens is four lines, and that of the cornea five lines; so that an arc of a third of the circumference of the cornea would have a chord slightly greater than the diameter of the lens. Some additional length is generally wanted on account of the thickness of the lens.

Case III.—Mrs. T., æt. 68, American, in feeble health, entered the Infirmary May 13th, 1864, with cataract of the left eye. Iridectomy was done upwards on the 14th. Patient left on the 6th of June, doing well.

Aug. 19th.—Came back. Since leaving has been ill some of the time, but better for the past six weeks. The right eye shows some lenticular opacity and small floating opacities in the vitreous.

22d.—More than three months after the iridectomy, extraction was done upwards (under ether). Nucleus small.

25th.—Some pain. Lids very slightly swollen. Some conjunctival injection. Pupil dilated by yesterday's atropine. Compressive bandage continued. Atropine instilled. Weather very warm. May sit up.

27th.—Five days after operation. Conjunctiva somewhat swelled. Pupil dilated; its aperture in part of a cloudy, creamy hue. Compressive bandage omitted.

29th.—About the same, except appearance of pus in anterior chamber. Pain at times severe.

Sept. 10th.—Nineteen days from the operation. Œdema of upper lid increasing. For several days pus has shown itself near the aperture in the iris made by the iridectomy. Pupil still dilated.

27th.—Inflammation diminished. Occasional pain. Cornea slightly opaque. Pupil nearly closed. Opaque substance blocking up the artificial pupil and the natural one. Tension of globe diminished.

Oct. 2d.—Movable reddish fluid in anterior chamber. Tension much less than normal.

4th.—Patient left.

25th.—Came back. Tension restored somewhat. Reddish fluid absorbed. Cornea clear, except above in neighborhood of section. Pupil occupied by a whitish membrane.

Nov. 28th.—Iridectomy downwards and inwards.

Dec. 15th.—With convex $3\frac{1}{2}$, has vision $\frac{1}{10}$ at ten feet.

1865, Oct. 6th.—Vision about the same, though on trial not quite as good as Dec. 15th, 1864.

This case is interesting as showing how tedious may sometimes be the inflammatory process after extraction, and also that notwith-

standing very unpromising symptoms a useful amount of vision may sometimes be obtained. In consideration of the above case and of another similar one, in which the inflammatory mass occupying the pupil seemed continuous on the one hand with the edges of the artificial pupil, and on the other with the corneal section, the question occurred whether the inflammation might not be aggravated by the presence of this artificial pupil. Is it possible that this pupil, by allowing the inflamed lens-remnants to come in contact with the corneal section, thereby promotes the transference of the inflammation from one to the other, or that the edges of the artificial pupil take on inflammation more readily than the rest of the surface of the iris? However, if we consider the morbid process in the two cases referred to as consisting in great part of inflammation of the portion of the lens remaining behind after extraction, it must be remembered that by means of the artificial pupil the extraction of the soft part of the lens is much facilitated. Setting this advantage of the iridectomy against the possible disadvantage referred to, there would still be reasons for considering flap-extraction preceded at an interval of some weeks by iridectomy as in general the easiest and safest method for ordinary hard cataract, inasmuch as by this method, with comparatively slight danger of rupturing the hyaloid, the removal of the lens is facilitated, and for a given amount of pressure on the eye a somewhat smaller section would suffice, and also rapid union is promoted. If the patient were quite infirm or restless, we might substitute for the usual section a smaller one of about a third of the circumference of the cornea, and bring out the lens with the aid of the spoon, setting the advantage of the smaller section over against the danger from the use of the spoon.

CLINICAL LECTURES ON AMBLYOPIA AND AMAUROSIS, BY PROF. A. von GRAEFE.

[Continued from page 355.]

While the intra-ocular end of the normal optic nerve, let its whole effect be white or yellow, still offers a well-marked reddish tint, which only partially gives way to the more decided bluish-white reflex of the lamina cribrosa, as in the case perhaps of an existing physiological excavation; in many cases of amblyopia, particularly the more serious, the whole face of the papilla becomes of an intense white. The contrast of color with the adjacent choroid becomes naturally more marked, the edge of the latter appearing to have acquired an increased distinctness. This reflex occurs for a double reason—partly because the atrophy of the papilla lays bare more of the lamina cribrosa, which offers a stronger reflection; partly because—besides the disappearance of the nerve-fibres—a thickening of the connective-tissue elements takes place in the papillary

section of the nerve. These two causes may be concerned together or separately in the change of color. If the first alone acts, the color becomes a bluish-white, and an excavation caused by atrophy results; if the second acts, the consequence is an intense and pure whiteness of the papilla, the surface of which is smooth; if both are concerned, the papilla becomes slightly excavated, the lamina cribrosa only visible in detail in places, perhaps through a preëxisting physiological excavation, the remainder being concealed by a layer of white connective-tissue. The reason why sometimes one form and sometimes the other occurs, does not appear to lie in an essential difference in the process of atrophy, but rather, as Schweigger's researches tend to show, in a preëxisting variety in the form of the papilla and in the different physiological intra-ocular pressure, as also in the intermediate effects of a stimulated circulation (on the connective-tissue). The second criterion, the *opacity*, need hardly be referred to after what has been said. The delicate semi-transparency of the normal papilla is naturally wanting when the connective tissue of the lamina cribrosa, or the thickened tissue substituted at the extremity of the nerve, forms the visible boundary. We can no longer, as usual, see the trunks of the vessels dip in, and are involuntarily impressed with the dead look of the opaque substance of the papilla in comparison with its usual appearance of vitality. The third criterion, the *excavation*, has also been sufficiently dwelt upon. As has been said, its presence or absence depends on the more negative or positive condition of the inter-connective tissue in the atrophied extremity of the nerve. A few words, in conclusion, on the *lessened size of the vessels.* It is true that we sometimes find all the vessels, including the main trunks, diminished in calibre, but this is a rule that by no means invariably applies to the latter. We may have a case of complete amaurosis of long standing, in which the optic nerve exhibits every sign of (nervous) atrophy, and where the main vessels have retained their normal diameter. A wholly different state of things obtains when atrophy of the optic nerve is the ultimate result of intra-ocular processes, for example of choroido-retinitis; in such a case the very diminution in size of the main vessels is the most regular and often most striking symptom. The ground of this diversity may be found in the fact that in cases of amaurosis, so far as pathological investigations have yet reached, as also after the division of the optic nerve (Rosow), only the nerve-fibre and ganglion-cell layers atrophy, the rest of the retina maintaining itself; whereas, in cases of choroido-retinitis leading to disappearance of the optic entrance, the reverse is the case, the whole tissue of the retina becoming destroyed. The differences we notice in the calibre of the main vessels in cases of atrophic amaurosis may well (as in the case of the papilla) have their origin in the varying condition of the connective elements of the retina. The diminution in size, if

not the complete disappearance of the smaller vascular ramifications on the papilla is, on the other hand, a constant symptom. The normal red shade of the latter depends undoubtedly on the very large number of small vessels interwoven with it, and the absence of these vessels contributes very much to the whiteness found in cases of atrophy. It seems as though these fine branches ramifying on the papilla itself were almost exclusively destined to supply the intra-ocular extremity of the nerve and the fibres expanding in its vicinity, and it would be precisely these ramifications which would be most affected by the disappearance of the fibrous layer; while the largest portion of the bloodvessels of the retina would be preserved for the supply of its other layers. The pallor of the papilla caused by the diminished size of these ramifications has, of course, an appreciable effect on the change of color. If the semi-transparence be tolerably well preserved it may precede other symptoms and be indicative of the first period of the affection, during which an ordinary examination of the field of vision discovers no anomaly; and it needs the more delicate method of investigation to disclose a want of power in the periphery of the field consequent on impairment of the functions of the nerve-fibres.

For the sake of conciseness we will class all those symptoms visible on the papilla, and which may be present in every conceivable degree of the affection, under the head of *atrophic degeneration*, and endeavor to call attention to their practical bearings on the study of amaurosis. And, as has been the case with various ophthalmoscopic symptoms, the multitudinous inferences drawn from which have been greatly cut down by the results of clinical experience, so has it proved with regard to atrophic degeneration of the papilla. Its existence has been used to prove the presence of a process necessarily resulting in blindness, and to a certain extent has been employed as a material foundation for amaurosis. We enter a decided protest against this attempt at identification. It ignores the fact that it is absolutely impossible to tell by looking at an optic nerve whether the atrophic degeneration be progressive or stationary, while here in reality lies the pith of the whole matter. Such conclusions are only allowable when the results of the functional investigation and the manner of development of the disease are taken into consideration. A total absence of atrophic degeneration, consolatory though it be under certain circumstances, is not sufficient to exclude, among others, the very worst fears (Case VI.). On the other hand, the presence of an appreciable amount of atrophic degeneration certainly proves a derangement of nutrition, with which is linked a functional anomaly; but even when present in a marked degree, we are sometimes able to give a prognosis favorable as far as regards ultimate blindness (Cases III. and IV.).

For the sake of explanation, I must return to the impairments of function already spoken of. The coëxistence of atrophic degenera-

tion with a field of vision absolutely normal at its periphery, does not necessitate an unfavorable prognosis as far as regards blindness. The question, then, becomes one of defects of continuity in the field of vision—as, for example, of large central scotomas, a prolonged existence of which exercises a perceptible influence on the appearance of the optic nerve. One of our cases (III.) is an example of this. On the other hand, the presence of atrophic degeneration decidedly complicates the prognosis as regards recovery, and central scotomas thus accompanied are, as a rule, capable of but slight improvement. If the field of vision is relatively normal, the presence of atrophic degeneration weighs heavily in the balance; and this not only because it diminishes the hope of recovery that would otherwise exist, but also because the fear of progressive failure of vision is thus brought much nearer home. In amblyopia potatorum, for example, the appearance of the papilla furnishes an almost entirely reliable test as to the curability or incurability of the case; the same is true in those cases of amblyopia, with a relatively normal field of vision, dependent on chronic meningitis. In connection with a review of the course of the disease, which remains to be treated of, it entirely settles the matter. If the periphery of the field of vision is abnormal, we must make a circumstantial investigation. In hemiopia resulting from the paralysis of one tractus opticus, the presence of a large amount of atrophic degeneration may not alter the prognosis (Case IV.). It would be a grave mistake to deduce from this a necessary progressive change for the worse. Special weight, however, is to be attached to the condition of things in certain cases of concentric contraction of the field of vision, which admit of a tolerably favorable prognosis in the case of delicate children, or individuals of a pronounced nervous temperament, particularly women, provided the optic nerve has remained normal (Case VII.); otherwise, however, may justly give rise to apprehension. The absence of any particular symptoms in fresh cases of amblyopia or amaurosis, with contraction of the field of vision, should not, of course, lead us to indulge in any false feelings of security (Case VI.). Such symptoms need some time (occasionally, however, only a few weeks) for their development, and accordingly not infrequently follow slowly behind the functional failure. On the other hand, if the derangement have existed some time without any implication of the optic nerve, this fact, taken in connection with the other circumstances of the case, may afford us reasonable grounds for encouragement. In fact, a grave form of amaurosis, with an already considerable impairment of the field and acuteness of vision, can hardly have existed several months without having set its seal on the papilla. In a case of advanced impairment of vision of long duration, the papilla is found entirely intact (putting malingering out of the question) only in those rare and curable cases which

I denominate proper anæsthesia of the retina. The ascertainment of the condition of things in the second eye is of special importance in those ominous forms which in the strictest sense deserve the name of amaurosis or progressive atrophy. Here a degree of pallor of the papilla, perhaps even a sinking below its proper level, may sometimes be found in that very early stage, when it needs a strict investigation to discover a torpid condition of the retina at the periphery of the field of vision.

Other symptoms about the papilla have had importance attributed to them in cases of amblyopia. Especially was for a long time an infinite deal said of *hyperæmia of the papilla*, as indicative of the first congestive stage of the disease. It is certain that a want of a sufficiently comprehensive survey of the numerous physiological variations has caused much that was normal to be looked upon as morbid. I have no intention here of detailing the ophthalmoscopic symptoms of true hyperæmia of the papilla, and will only state that this may help to explain the reason of amblyopia (as, for example, in intercranial congestion), but will hardly of itself account for a considerable diminution of perception. This refers, of course, to anomalies in the fulness of the vessels without any structural change. Moreover, hyperæmia of the papilla occurs much more frequently as a consequence of undue exertion of the eyes, for example in derangements of the accommodation, than in amblyopia, and is entirely absent in the fatal forms of progressive atrophy.

It has also been thought that *anomalies in the limits of the papilla* might be found in many cases of amblyopia. A loss of transparency in the connective tissue of the superjacent retina, such as often (see above) happens on the papilla itself, would in fact cause a loss of distinctness in the margin of the choroid on account of the increased retinal reflex. It is a very important fact, however, as regards the diagnosis, that this loss of transparency in cases of amblyopia is confined to the papilla, and depends perhaps on a separate nutrition of its connective tissue with implication of those vessels passing over from the choroid (Leber). If atrophy of the nerve depend on an intra-ocular cause, on choroido-retinitis, or particularly on neuro-retinitis, the matter becomes a different one, and it is then the diminished transparency of the adjacent retina, surrounding the papilla with a narrow border or a broader ring (beside changes in the vessels) which enable us to watch this method of development for a long time after the original process has run its course.

Finally, a real *diminution* in the diameter of the papilla has been supposed to take place in cases of atrophy, but neither pathological anatomy nor clinical observation have ascertained anything of importance in this particular.

The third chief factor in aiding us to form an opinion in amblyopic affections is *the mode of development of the disease* and the accompanying symptoms. To enumerate the many points which are here of importance were impossible without going over the entire ground, and we will confine ourselves, at least on this occasion, to a few practical hints.

And, first, we observe cases where the trouble developes itself in the shape of sharply-defined hemiopic or concentric limitations of the field of vision; also of central scotoma and even of total blindness, in either case occurring suddenly or very quickly (i. e., in a few moments, hours or days). It was in pathology formerly the custom to connect any sudden occurrence with a hæmorrhagic effusion, and thus fared these cases. But only those affections where the hemiopia occurred on corresponding sides could be ascribed to

apoplexy in the anatomical sense of the word, and even this connection has its exceptions.*

Where we have to deal with a double central scotoma, with sudden blindness of one or both eyes, the hæmorrhagic hypothesis is seldom admissible. We could, indeed, hardly point out its locality without ignoring the information derived up to the present from pathological anatomy. If we have other symptoms, indeed, of a preëxisting or accompanying disease, such as a process at the base of the brain, or the products of encephalitis, we are able to give a somewhat definite opinion as regards the cause of the sudden derangement of vision. But this is by no means generally the case. I have so often seen all these forms occur in entire health, and accompanied by symptoms otherwise so vague, that I must frankly admit my ignorance in general as to their cause. Their connection with hæmatemesis, gastric derangements, or the acute exanthemata, when they thus occur, is still unexplained. An attempt has necessarily been made to take refuge in the favorite hypothesis of a vaso-motory influence and spasmodic contractions in the vessels thereon dependent; an hypothesis to which some accompanying circumstances in the condition of the retina and the general system seem occasionally to give a color. Even the fact of a symmetrical development in each retina, or in the cerebral source of each, might to a certain extent be plausibly explained by nervous influences similarly symmetrical. But when shall we succeed in fructifying this treacherous soil with the seed of sound fact? The significance and the course of these processes is as uncertain as was their theoretical contemplation. In two cases attacked with apparently identical symptoms, there may result complete recovery, or the affection may persist and atrophy of the optic nerve become developed. The prognosis of the disease must, therefore, depend on its progress. Sudden cases of blindness in each eye seem to me to result more favorably in children than in adults. I shall embrace a favorable opportunity of publishing some facts in this connection. An absolute failure of quantitative perception of light, occurring in a case of sudden blindness, and having lasted one or several weeks, need not necessarily be regarded as hopeless. If it lasts longer, and is accompanied by atrophic degeneration of the optic nerve, the chance of course diminishes. It is favorable in the cases of derangement of vision of sudden occurrence after mental excitement, in which are found remarkable variability in the field of vision, entire retention of the phosphenes, even in the blind portions of the retina, and where absolute darkness exercises a favorable influence—a form of anæsthesia which sometimes accompanies cutaneous insensibility to pain, and which especially invites a solution on a vaso-motory basis. As regards central scotoma of sudden forma-

* We may even see true hemiopia, i. e., want of sensibility of one tractus opticus, as an accompaniment of migraine, of course distinguishing it from that false hemiopia, the seeing halves of objects, which sometimes occurs with migraine.

tion, I can give neither a cause nor a prognosis. I have seen it both disappear and remain fixed; never, however, lead to blindness when once its functional characteristics had for some time maintained themselves.

In comparison with the ordinary *more gradual* development, these cases of sudden or rapid occurrence must be looked upon as exceptional. Those cases of amblyopia in which the periphery of the field of vision proves *normal* or *relatively normal*, and the perception throughout the continuity of the field satisfactory, ordinarily develop themselves during several or many months till they either reach a certain point, or, the cause of the disease continuing active, assume other forms. Thus in cases where the periphery of the field of vision is absolutely normal, if the acuteness of vision continues to diminish, a central scotoma—previously impossible to define—becomes gradually developed. Those cases, on the contrary, where the field of vision is relatively normal, may pass into the amaurotic form with atrophic degeneration of the papilla, the field of vision becoming contracted (see above). As a rule, and in contrast with genuine atrophy, the affection in these cases which seem more favorable at the outset, developes itself equally in each eye. As far as regards the chance of ultimate blindness, the fact of the disease having remained a long time at the same point is materially favorable. The more serious forms are, it is true, liable to interruptions, which however, if carefully watched, are seldom found to last more than a few months. The fact that for a long time no change has occurred need not dampen the hope of recovery, provided the optic nerve appears normal, and no contraction of or interruption in the field of vision has taken place. On the contrary, we generally find these forms may be cured by a proper attention to the predominant cause. The immoderate use of alcoholic liquors, frequent indulgence in strong cigars, pelvic obstructions, catamenial derangements, cold extremities, suppression of habitual hæmorrhagic discharges or of pathological and physiological secretions, venereal excesses, irregular sleep and immoderate use of the eyes sometimes exert a separate, sometimes a combined effect, and it is then difficult to assign each their part.* The more, then, taking a general survey of the case, it is possible to ascertain and attend to these causes, the more confidently may we pronounce our judgment. If, partly from the above-named causes, and partly from some of which we are ignorant, symptoms have become developed which render probable the existence of a chronic meningitis, such as violent attacks of recurrent headache, with sensibility of the head to the touch, a sense of confusion, &c., a more cautious prognosis should be given; for al-

* The fact which cannot be denied, that amblyopia affects men more frequently than women, the proportion with us being about 4 to 1, has seemed to justify the conclusion that smoking is one of the chief causes; many of the other conditions, however, are especially applicable to men, and, in my opinion, excessive smoking must be regarded, in the majority of cases, as simply among the active causes.

though we often succeed in curing such forms of amblyopia by the use of powerful derivative* agents, they sometimes, however, assume a less favorable type. The same applies to amblyopia, although the functional derangement be slight, occurring after severe attacks of sickness—for example, after typhus and erysipelas of the head.

Of particular importance is the process of development in cases of *contraction of the field of vision.* And here should be stated, with reference to hemiopic limitations, that—putting out of the question cases of apoplexy and encephalitis—they may sometimes be induced by idiopathic and even transitory affections of an optic nerve tract. These generally depend on syphilis, in isolated cases, however, certain inexplicable nervous influences come into play, and neither the subsequent course of, nor recovery from the disease brings them to light. My experience teaches the development of such favorable cases to be so relatively rapid that the acme may be reached in a few weeks. Similar, but very rare cases of temporal hemiopia, of relatively quick development, are observed, in which—to judge from the entire subsidence of the symptoms—a transitory affection of the fasciculi cruciati must have been the cause. I by no means intend to assert that it is always possible to distinguish soon after its commencement, between this and the more serious affections; but among the more important criteria for determining this as soon as possible, appear to me to be the rapid, as well as nearly simultaneous and symmetrical development in both eyes; the relatively acute central vision, which seldom falls below $\frac{1}{4}$ or $\frac{1}{6}$, and the the entire integrity of the papilla after a lapse of several weeks. When within a relatively short time one eye becomes entirely blind, while the other for months afterwards remains intact, the prognosis with regard to the latter is much more favorable than if the disease had progressed insidiously and the first eye perhaps become only partially blind. We have in the first instance to refer the atrophy to one optic nerve proceeding from the chiasma, inasmuch as it would be highly improbable that an affection of the fasciculus lateralis or fasciculus cruciatus alone, and not of the contiguous fibres, should be in question.

If considerable derangements of vision, with contractions of the field of vision of one kind or another, follow on acute and severe cerebral symptoms bearing the type of encephalo-meningitis, we have no right to deduce progressive atrophy from either the unfavorable functional derangements nor from the atrophic degeneration of the papilla. We see, indeed, not infrequently, and in spite of all this, that gradual improvement up to a certain permanent point takes place. I was consulted a week ago by a person 24 years of age, who, at the age of 12, had suffered from a severe affection of the brain, as a direct consequence of which, the left eye had become en-

* Particularly the seton, which is here especially indicated, not, however, in genuine atrophy. Further, we may use aperients and a course of sublimate.

tirely blind, and the right limited to a small, central field of vision, enabling him with much difficulty to find his way about, and to distinguish the larger letters. The optic papilla of this eye had undergone important changes; the functional state, however, during the last twelve years, had remained the same. We must make it, as a general rule, the object of a careful examination to decide whether the cause of the derangement of vision has passed away or is still active. In the first case we often have to do with a result dependent on destruction of a portion of the conductive elements, and there is hardly a form of amblyopia amaurotica which may not to a certain extent be thus regarded. The same considerations apply to the question of recovery. Complete blindness may supervene on acute cerebral disease, quantitative perception of light may be entirely lost for several weeks, or in exceptional cases, even months, and yet vision be partially restored. My only intention in stating this is to warn against forming a fatal prognosis too quickly. On the other hand, illusory hopes must not be indulged in; if absolute blindness have lasted a considerable time and the papilla become degenerated, the prospect is extremely bad, and at the best becomes confined to the reinstalment of small portions of the field of vision. A marked distinction, however, still exists between processes of this class and those which progress insidiously and without marked cerebral symptoms, inasmuch as these, in no stage of their development, admit of amelioration, and are at the utmost capable of being but temporarily arrested.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Nov. 13th.—Dr. HODGES reported the following cases, and exhibited plaster casts illustrating their results.

I.—*Extensive Removal of Tarsal Bones.*—A man, 33 years old, seven weeks previous to his admission to the Massachusetts General Hospital, wounded the dorsum of his left foot deeply with an axe. Abscesses, extensive suppurative inflammation of the soft parts, and disease of the tarsal bones followed. His general health depreciated in consequence. July 22d, under ether, it was found that the finger could be passed through the tarsus to the sole of the foot. By a transverse incision across the instep, the proximal heads of all the metatarsal bones, the three cuneiform bones and the cuboid, all of which were diseased, were removed. A large incision was made longitudinally through the thickness of the sole, to permit the escape of pus. In making the dorsal incision, the extensor tendons were disregarded, as their usefulness had already been destroyed by the primary injury and the subsequent inflammation.

Aug. 17th, the patient sat up.

Aug. 27th, he began to walk by the aid of crutches.

Sept. 1st, the wound was entirely healed.

Sept. 11th.—Having been about the hospital grounds for ten days, the cicatrix being perfectly sound and firm, and his health entirely re-established, the patient was discharged. The foot was somewhat shortened, though otherwise but little deformed. Its plantar aspect was convex instead of concave, the bulging being due to the flexion caused by approximating the surfaces of the gap made in the skeleton of the foot. The pressure of further use promised to remedy this. For walking, the stump was preferable to any which could have been left by an amputation of a portion of the foot, the only alternative of the operation performed.

II.—*Excision of all the Tarsal Bones and of the Ends of the Tibia and Fibula.*—A little boy, 5½ years old, was "run over" by an empty railroad ice-car. The principal injury received was by his feet. In the right foot the integument was almost universally separated from the subjacent tissues by effused blood, it was lacerated over each ankle, and the soft parts generally were greatly bruised and disintegrated. No fracture was discernible, nor was there any distortion that suggested dislocation of any of the tarsal bones. The left foot was similarly injured, but to a less extent. The question of immediate amputation was raised on his admission to the Massachusetts General Hospital, July 14th, three hours after the accident, but the attempt to save the foot seemed justifiable. On the 15th, numerous incisions and punctures through the skin were made to relieve the tension, which was great. Much improvement followed this. On the 18th, scarlet fever made its appearance. It ran a mild course, but was succeeded by a desquamation of unusual thickness and severity, which left the skin exceedingly tender and sensitive, and prolonged convalescence. During this time all active inflammation in the feet subsided, and the left one quite got well. Over each malleolus of the right there was a broad ulceration, at the bottom of which dead bone could be felt. It was not until Sept. 6th that the boy's general health permitted examination under ether, and the performance of any operation. It was then found that the necrosis of the tarsal bones was general, and that the extremities of the tibia and fibula were also involved. By a curved incision from the external malleolus along the outer border of the foot, and across the front part of the dorsum of the foot, all the tarsal bones and about one inch of the tibia and fibula were removed. An effort was made to leave behind all the periosteum possible. The recovery was rapid, and on the 6th of October the wound was healed, the foot had regained its shape, and differed only from its fellow in length and the want of prominence at the heel. The patient was able to raise and hold it out himself, and wore only a small and light tin splint, with a foot-piece for support.

Oct. 13th, he began to use the foot in walking, which, though the shortening of the whole limb was considerable, furnished a remarkably firm and hard-padded stump, promising advantages over an artificial substitute. The general health, strength and flesh were entirely restored.

III.—*Circumscribed Traumatic Aneurism of the Right Brachial Artery; Incision of the Sac; Ligature of both Ends of the Artery.*—The

injury occurred whilst shovelling coal, a large lump falling from his shovel while the patient was in the act of lifting it. Severe pain at the elbow instantly followed, obliging him to quit work, and not permitting sleep, except when under the influence of opium. Ten days after the accident, the arm began to swell and to be discolored. When this condition subsided, at the end of three weeks, a tumor was discovered just below the elbow, as large as a small egg. The maximum of the tumor was at first towards the internal condyle; afterwards it rapidly developed across the arm towards the outer condyle. At the time of the patient's entrance to the Massachusetts General Hospital, Oct. 25th, seven weeks after the accident, it was of the bigness of a man's fist, its transverse diameter being double that of the longitudinal, and lying wholly below the bend of the elbow. It was elastic, neither fluctuating, sensitive nor movable. It pulsated feebly on its inner side, not elsewhere, and there was no pulsation either in the radial or ulnar artery at the wrist. It gave an aneurismal murmur when listened to with the stethoscope. It was not compressible, diminished in size by pressure, nor modified by compression of the artery above, except as to pulsation. The hand was sub-livid, cold and numb. The tumor was slowly enlarging. Oct. 28th, the brachial artery being compressed, an incision was made, the muscles were separated, and the tumor exposed. It consisted wholly of recent coagula, contained within a distinct, circumscribed sac. These were turned out, and the artery, which lay superficially upon the tumor, was tied above and below an oval opening which involved about one half the calibre of the vessel, as though a transverse rupture had occurred, the edges of which had subsequently separated. A small fibrinous clot protruded from each end of the artery at its point of rupture. The collateral circulation being in part established, there was a little bleeding from the surface of the false sac of the aneurism; otherwise no blood was lost. The ligatures came away Nov. 3d, at which time the wound was granulating finely. No pulsation had reappeared in the arteries at the wrist.

The subject of this operation was born in Connecticut, was 41 years old, of a large, tall frame, and always healthy. He had been three years in the army.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 7, 1865.

THE CHOLERA—CONTAGION AND QUARANTINE.—We published in our last number a resolution passed at a recent meeting of our local medical society, in which the profession of this city is represented as expressing a unanimous opinion "that cholera is not contagious." We felt at the time that the action of the Society was not as deliberate as the important nature of the question under consideration deserved, and that more time should have been given to discussion before the decisive opinions of members were called for, particularly as the term contagion is used with so wide a latitude of meaning. That cholera

is not contagious like smallpox, undoubtedly all present were prepared to admit, but that it cannot be communicated in any way by intercourse with or approximation to those already affected, was certainly not the interpretation intended by many who voted for the adoption of the resolution. Inasmuch, however, as the vote also covered a recommendation to the municipal authorities concerning the sanitary condition of the city, it was passed, although, as it stands, it neither represents the opinion of the profession as a whole, nor even of all those who were present at the meeting, on the subject of contagion. Such a question should be discussed at a special meeting, and certainly deserves more than an hour's consideration.

Within a few days the daily newspapers have published the remarks made at that meeting by one of the oldest and most eminent physicians of this city, in which he advocated the following points of belief:—

"I. I do not believe that cholera has hitherto shown itself to be a contagious disease.

"II. I do not believe in the efficacy of quarantine or any species of non-intercourse, to avert the disease.

"III. From our past observations, I do not believe that cholera, should it re-appear in this country, will be so likely to trouble New England as it is to visit the malarious regions of the South and West.

"IV. I believe that the best prophylactics against this disease are strict temperance, wholesome food and clothing, uncrowded residences and lodgings, and avoidance of excesses of all kinds.

"V. I believe that cleanliness, good drainage, and an abatement of nuisances are essential to the comfort and health of all cities. Their specific influence upon cholera may be assumed to be as great as that upon influenza, scarlet fever, smallpox and various other epidemics, but not greater."

With due respect for the opinions of one who has had, perhaps, a more extended opportunity of studying this disease than any other member of the Society, we feel it our duty to state that the views expressed in the last paragraph are held by himself alone, so far as we know, and that we certainly consider it injudicious that they should have been published in such a manner and at a time when the whole profession has been urging upon the public authorities, already too remiss, the special and immediate necessity of sanitary reform in view of the approach of cholera.

The same public journals contain, also, the following announcement of the opinions of the Consulting Physicians of the city, who "unequivocally declare their conviction that the disease is neither contagious nor infectious; that it cannot be propagated by being near the sick, nor by handling the secretions or excretions from the bodies of the sick or of the dead. The disease is epidemic, and cannot be restrained or controlled in its progress by quarantines or cordons of any kind. * * * Being thus of the opinion that neither quarantine by sea nor sanitary cordons by land have ever been found, or can be found, effectual in protecting cities or countries from the visitation of cholera, the physicians therefore recommend that no such restrictions be made, but in order to produce tranquillity in the public mind, and from respect to the opinions of those who think differently, they believe it

might be well that vessels arriving from places where the disease exists should be made subject to the visitation of the Port Physician, but that none of the passengers or men should be in any way restrained from freely communicating with their friends on shore, or with the city, or from landing at any time with their personal baggage and effects, and no vessel should be detained in quarantine longer than is absolutely necessary to put her in a cleanly condition."

To the far more important question of the disposal of a vessel and passengers arriving with the disease on board, they make no allusion. If their views concerning its non-propagation above stated are correct, both the ship and its contents should be allowed to come at once to our wharves; if, on the other hand, such a vessel may be regarded as a floating and detached portion or district of the infected city she has recently left, and there be grounds for believing that the disease may be borne in this way from country to country, or that it may in some manner be communicated by individuals or their surroundings to others, without reference to the possibility of its spontaneous origin or of its arrival in some other way or at some other time, we maintain that it is the duty of the authorities to hold such a ship at arm's length from our city, to discharge at a distance her passengers and to cleanse her as speedily as possible, to separate the sick from the well, and to prepare insulated hospital accommodations for the former. As to the further disposal of the non-affected, we do not feel competent to offer an opinion. In view, however, of certain facts connected with the present epidemic in European ports, the question seems to us one of grave importance, and worthy of mature consideration. This course we shall hold to be the only proper one, until it has been demonstrated beyond all question that such precautionary measures are of no avail, and as long as the opinions of the eminent scientific men, in countries where ample opportunity is afforded of studying the natural history of the disease, concerning contagion and quarantine, directly support it. So long as any rational doubt exists, it would be culpable to act otherwise.

The foreign medical journals just received contain much interesting matter bearing upon these questions, from which we quote without comment, that it may be seen how widely the opinions of medical men in other countries, concerning the present epidemic at least, differ from those held by the gentlemen above mentioned.

Dr. Guerin, in the *Gazette Médicale de Paris*, says:—"Having described the amount of the evil, let us recall the methods of stopping and preventing the disease. The authorities have taken wise measures; the troops are marched out, and the barracks are aired and cleaned. This is good: but it is not enough. It ought to be made universally known that diarrhœa is the prelude to cholera, and that by treating it the development of cholera is prevented: daily inspections should be ordered, if this has not been already done; finally, the regiments should be scattered as much as possible, and the proportion of numbers to localities diminished. The same is true as to all masses of individuals, workshops, even hospitals. Then we consider it an evil to assemble a large number of cases in one locality, such as a special ward. The hospital authorities have no doubt done well in not admitting cholera patients into wards containing others, but it is very desirable that provisional hospitals should be established round Paris,

so as to spread the cases as much as possible. It has always been noticed that the mortality has been greater in the neighborhood of large hospitals. The neighboring population would therefore gain by not having around it great centres of infection. This is why we have always protested against the system of large hospitals, against central hospitals, if not against the hospitals themselves."

In an article by Prince J. Zagiell, physician in Cairo, published in the *Gazette des Hopitaux*, it is stated with reference to the question of contagion, "The morbific principles are not of the nature of a virus, but depend upon molecular miasmata diffused through the atmosphere, which poison by contact with the mucous membrane of the respiratory passages, and with the cutaneous system. Cholera is transmitted from individual to individual independently, up to a certain point of atmospheric conditions. The places where the pathogenetic principles are disengaged, are the centres which act only on the individuals within their sphere of activity, and in whom there already exists a special predisposition, accompanied by normal influences which favor the action of contagious miasm. Then, individuals once attacked by this disease, become themselves centres of infection, pouring into the atmosphere the animalcules capable of transmitting the epidemic to other individuals equally predisposed. Therefore, it is not by the contact of individuals that cholera poisons, but by altering the surrounding air which is breathed by the individuals inhabiting infected localities."

The French government, as our readers may know, has proposed an international congress to study the disease and "to propose practical measures for confining and suppressing the cholera upon its first appearance," and the London *Lancet*, in discussing the proposition, strongly urges the efficacy and economy of quarantine, and speaking of the visit of the Emperor to the Paris cholera hospitals, it says further:—"It may be permitted us, however, to doubt whether the urgency of the case is such as to call for this invitation to contagion, or whether the good done under existing circumstances is equal to the gravity of the risk incurred. Many a time when a general has felt an impulse to head the dashing charge, he has been arrested by the friendly voice which reminded him that his own life weighed too heavily in the scale to be risked on the chance of meeting a stray bullet; and too little is known of the means by which cholera is diffused to allow us to say that the Emperor did not incur voluntarily a considerable danger in breathing the atmosphere of those wards. * * For we repeat that the good done by the visit of the Emperor cannot, in our opinion, under present circumstances, weigh for a moment against the danger to the country from his voluntarily entering a focus of cholera poison."

The Constantinople correspondent of the *Medical Times and Gazette* writes as follows:—"If any one should still have entertained any doubts about the contagious nature of cholera, these must have been finally dispelled by the circumstances attending the last epidemic here, which I shortly described in a previous letter, and which were almost identical with those observed during the visitation of the same disease at the time of the Crimean war. Then the French troops who came from Algeria, where the disease devastated the country, had scarcely been disembarked at Gallipolis when the cholera broke out

amongst the people there. From this place the disease followed the French to Varna, where it decimated the inhabitants, sparing, however, the intermediate centres of population, and more especially Constantinople, with which the French had not had any communication. At a later period a camp was formed on the heights of Maslac, the *échelon* of which was Yeni-keny, in the Bosphorus. This had scarcely been done when cholera appeared at Yeni-keny, but in no other quarter of the metropolis; it was only after some time that the disease invaded Pera, the nearest suburb to Maslac, with which the troops lodged in the camp had had frequent communication. Such observations as these are almost as convincing as physical experiments; they show the connection between cause and effect as clearly as it can be shown in pure science. That ill-fated ship which brought us cholera this season from Alexandria has added another striking proof for the assertion that cholera is indeed an eminently contagious disease. Not that the simple contact of a choleraic patient would suffice to produce cholera in another; but it is contagious in the way in which yellow fever is so. Both yellow fever and cholera have a great predilection for ships which are stationed in the ports where an epidemic is raging; both diseases have sometimes a long incubation; they often only break out after the vessel has left the infected place, and, the disorder having once been established on board, it clings to the unfortunate ship with the utmost tenacity. In cholera it is chiefly the alvine evacuations which propagate the disease. In this way linen which has been used by choleraic patients, houses which have been inhabited by them, ships where contamination has once taken place, may retain the contagion for a long time, and become the cause of fresh infections. Moreover, we find that the evacuations of persons suffering from the milder forms of the disease, of "cholerine" and choleraic diarrhœa, yet contain the contagion, just as well as the excretions of those who have died of real cholera; and it may therefore be readily conceived that ships, houses, &c., may be contaminated without a single attack of real cholera having as yet taken place within their precincts." * *

"It is well known that the period of incubation in cholera is much longer than five days, since the researches of Pettenkofer and Faye have shown that incubation generally lasts a week or two, and sometimes as long as three or four weeks; and how can quarantine be expected to prove useful if the minimum duration of the period of incubation is taken as a standard? Another requirement appears to be that those who give false declarations of health should be severely punished. In the case of the *Mukbiri-Surur*, which, as you know, brought the disease to us, the captain declared that there had been no death nor any case of disease amongst the crew during the passage, and upon this declaration the vessel was at once freely admitted; yet on the evening of the same day twelve patients were brought from the same ship to the Marine Hospital, and the physicians at once perceived that there were eleven cases of "cholerine" and one of algid cholera. The latter ended fatally the same night."

The account of the local epidemic at Epping, in the same journal, illustrates in a striking manner the importance of good drainage. Eleven persons were attacked, and eight died, from drinking water from an infected well, among whom were the physician and nurse of those originally attacked.

The same journal gives the following account of Snow's theory of the cause of cholera :—

"Snow only looked upon water as the great means by which the cholera poison was distributed. He said, and he proved, that if choleraic excreta be supplied to a community by and through the water which that community drinks, such process will prove the most determinate means of introducing cholera into the community, and that by such process great and sudden outbreaks of cholera will be secured. Acting on this thought, he actually advanced directly to the cause of the cholera during the terrible Broad-street epidemic in London, and, removing the handle of the pump by which choleraic poison was being dispensed to many hundreds of the population, he stopped the plague as if by magic. But while he held to this view of water as a means of propagating the poison, he enforced the opinion that there were other modes of transit. He put these modes into four groups. First, he held that the moist cholera excreta on the clothes and bedding of infected persons might be carried mechanically by the *vapor* of water, and might enter the nostrils and mouth in that form, and so be swallowed with the buccal secretion. It was in this way, he believed, that laundresses engaged in washing the clothes of infected persons were so readily attacked. Secondly, he maintained that the poison might dry on infected clothing, and that from such clothing, on its being unfolded or moved, the solid organic matter might escape in small substance, might be wafted a few feet in the air, and might, in fact, be absorbed through the mouth by any one exposed to it. Thirdly, in respect of nurses, persons who lay out the dead, and others in attendance, he urged that these might actually carry the poison on their hands and infect themselves by taking their food while their skin was not properly clean. In mines and dark places where many persons congregate, this, he thought, was a very common means of communication. Lastly, he concluded that the very utensils—such as basins and cups used by the sick—might convey the choleraic matter, or even the cloths on which such utensils, imperfectly washed, have been dried."

And further on it says :—

"In so far as practice is concerned, the whole experience of the present epidemic has been to show that the choleraic poison, once developed, travels only in the manner suggested by Dr. Snow, and that all rational measures for the suppression of cholera rest on a correct appreciation of his theory. Thus, at Constantinople, infected articles of clothing were washed in water which afterwards escaped to a drinking fountain; thus, in Paris, the disease is spreading by the aggregation of diseased with healthy persons; thus now, as in all former epidemics, it runs that those who attend most closely to the sick and wash the infected clothing die most speedily; thus it is that when the poison is introduced into or developed in towns where it cannot contaminate great supplies of water, the disease is localized and limited."

Accounts from Paris to the *Medical Times and Gazette* state that :—

"The hospital physicians seem to be modifying their ideas concerning contagion, as all the cholera patients are treated in separate wards. The Administration has also ordered the immediate removal, cleaning and disinfecting of the bedding used by cholera patients, as well as the washing and fumigation of the personal clothing. * * * During the last week the cholera has been on the increase in Paris, and has exceeded the formidable number of 300 deaths per diem, reckoning private and hospital patients. While at some hospitals a diminution in the number of admissions has been observed, in others these have increased, so that the St. Antoine and La Charité now receive more than the Hotel Dieu; but it is in private practice that the increase is chiefly observed, while many of the patients who were already in the various hospitals for other complaints prior to the outbreak have fallen victims to it. The Hospital Beaujou, in the Quartier St. Honoré, is filled with patients, and the mortality is enormous, and the diserse spreads in the hospitals."

It has been stated as evidence of the non-contagiousness of the affection, that physicians and hospital attendants never take the disease. We have been told by one of the physicians at the cholera hospital during the last epidemic in this city, that several of those in attendance were somewhat affected by choleraic symptoms, and the large number of deaths among medical men in Europe during the present epidemic certainly points in an opposite direction. The *Lancet* of Oct. 28th says :—

"M. Cacciaguerra, a medical student attached to the St. Antoine Hospital, of Paris, caught the disease while attending cholera patients, and died very rapidly. Several other students are lying ill, stricken by the epidemic. We learn that M. Mocquot, one of these excellent young men, has just died. The following medical practitioners have recently died at Ancona, whilst attending cholera patients. We find the list in the *Imparziale*, of Florence, and hope, with the Editor, that the Italian government will not forget the widows and orphans. In fact, nothing less than great liberality towards the relicts and the children can be accepted by the medical body as a recognition of the heroism of these men. Drs. Jacobi, Persichelti, Stefanini, Bruscoli, Marchetti, Piccinini, Polloni, Corbisier, Pederzolli and Bonetti."

The death from cholera of Dr. Briard, an eminent Parisian practitioner, is also announced. In England even, as yet so lightly visited, Mr. Cooper, one of the health officers of Southampton, and Mr. McNab, the medical attendant upon the cases at Epping above mentioned, have succumbed to the disease.

We learn that there are 450 students attending the present course of lectures in the Medical Department of the University of Michigan. The Department of Medicine and Surgery was opened in 1850, and it now numbers the largest class that has ever been assembled west of the mountains. It employs ten professors and instructors, and has a six months' course of instruction.

From the last annual report of the Physician and Superintendent of the Vermont Asylum for the Insane, we learn that there were in the institution, Aug. 1, 1864, 458 patients. There were admitted 144; discharged, 122; remained Aug. 1, 1865, 480.

Dr. George W. Marsters, of Waltham, late Assistant Surgeon in the U. S. Navy, has been appointed Assistant Surgeon to the State Almshouse at Tewksbury.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 2d, 1865.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	48	34	82
Ave. mortality of corresponding weeks for ten years, 1853—1863	39.4	40.5	79.9
Average corrected to increased population - - - - -	00	00	87.06
Death of persons above 90 - - - - - - - - -		0	0

NOTICE.—Bills of subscribers who are indebted for the current year will be enclosed in the present number of the JOURNAL, or in one or two of the succeeding numbers. As no collector has been employed during the present year, subscribers are requested to remit their subscriptions, either in the usual way by mail, by private conveyance, or by money orders through their respective postmasters. Some accounts of longer standing have already been forwarded, and the attention of those interested is particularly called to these accounts.

COMMUNICATIONS RECEIVED.—Clinical Cases in the City Hospital, Albany.—Letter from the Assistant Surgeon U. S. Steamer Suwance, off the coast of Washington Territory.

PAMPHLETS RECEIVED.—Twenty-ninth Annual Report of the Officers of the Vermont Asylum for the Insane.

MARRIED,—In this city, Nov. 30th, Alexander Thomas, M.D., to Miss Margaret Williams.—In Portland, Me., Nov. 25th, N. A. Hersom, M.D., late Surgeon 17th Me. Vols., of Farmington, N. H., to Miss Jennie S. Lord, of Springvale, Me.—In New York, Nov. 28th, Dr. Frank O. Earl, formerly of Chelsea, Mass., to Miss Sarah Carpenter, of New York.

DEATHS IN BOSTON for the week ending Saturday noon, December 2d, 82. Males, 48—Females 34. Accident, 1—apoplexy, 2—inflammation of the bladder, 1—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 1—carbuncle, 1—cancer, 1—consumption, 19—convulsions, 4—debility, 1—diarrhœa, 2—dropsy of the brain, 2—bilious fever, 1—scarlet fever, 1—typhoid fever, 3—typhus fever, 1—disease of the heart, 3—hernia, 1—infantile disease, 6—disease of the kidneys, 1—disease of the liver, 3—congestion of the lungs, 1—disease of the lungs, 1—inflammation of the lungs, 8—marasmus, 2—premature birth, 1—smallpox, 1—spina bifida, 1—synovitis, 1—unknown, 8.

Under 5 years of age, 32—between 5 and 20 years, 3—between 20 and 40 years, 23—between 40 and 60 years, 12—above 60 years, 12. Born in the United States, 54—Ireland, 19—other places, 9.